

Toronto Sewer Use By-law

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Based on Information Provided by

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Background - Timeframe

- 1998 - City Board of Health -Examine regulations to prevent dental waste entering sewer
- Late 1990s ODA Best Practices manual
- ISO 11143 standard - late 1999
- Amalgamation - uniform by-law for new City of Toronto
- July 6, 2000 - Council enacts sewer use by-law
- September,2001 - Canada Wide Standard

Sewer Use By-Law

- Dental Offices required to submit pollution prevention plan by December 31, 2001
- Install and maintain a dental waste amalgam separator (type not specified) by January 1 2002
- Maximum mercury discharge concentration of 0.01mg/L effective June 30,2002 (extended to November 1, 2002)

Approach

- Discharge standard rather than equipment based standard
- Pollution prevention plan

Pollution Prevention Plan

Challenges

- large number of dental practices(approx. 1500)
- simplifying the process

Development of Standard Form

Pollution Prevention Plan

Information Requirements include:

- type of separator
- frequency of servicing
- plumbing connections
- handling of waste from separator
- amalgam preparation
- storage, handling, disposal of scrap amalgam

Discharge Based vs Equipment Based Standard

Arguments for Equipment Based

- easier for dentists to determine what type of separator is acceptable
- concentration limit - requires sampling by both city and dentist
- practicality of testing questioned - large number of variables

Discharge Based vs Equipment Based Standard

Arguments for discharge based

- non prescriptive - greater flexibility on how to meet standard
- some equipment manufacturers modified separators to meet standard
- equipment based standard does not ensure that all amalgam bearing pipes and drains are connected to the separator

Progress

Toronto Biosolids(mg/kg dry weight)

Month	Highland Crk.	Humber	Ashbridges Bay	N. Toronto
Avg. 2001	1.38	3.47	2.32	3.24
Jan. 2002	0.75	1.15	0.75	1.68
Feb.	1.1	1.0	1.6	1.3
Mar.	0.6	1.2	1.45	2.33
April	0.5	0.5	0.8	2.7
May	0.3	0.7	1.15	1.31
June	0.4	2.0	1.5	2.3
Avg. 2002	0.61	1.09	1.20	1.94

Further Issues

- Historic contamination in plumbing and drains
 - remediation strategies require further research
- ultimate disposal of scrap plumbing

Some Observations

- All parties became fully engaged in the process
 - Forced everyone to work through the details
 - resulted in better analysis and understanding (eg. UofT study)
 - equipment suppliers provided a better product/service - a competitive market
 - dental community made serious and conscientious effort to comply
 - influenced approach in other jurisdictions (eg CWS)
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Contact

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